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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,534	11/01/2001	Tae-Sung Jung	678-768(P9939)	3265
28249	7590	10/24/2006	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			BLAIR, DOUGLAS B	
			ART UNIT	PAPER NUMBER
			2142	

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/002,534	JUNG, TAE-SUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Douglas B. Blair	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Claims 1-8 are currently pending in this application.

### *Continued Examination Under 37 CFR 1.114*

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/28/2006 has been entered.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,915,345 to Tummala et al. in view of U.S. Patent Number 6,751,729 to Giniger et al.
5. As to claim 1, Tummala teaches a system for providing a VPN (Virtual Private Network) service by connecting a VPN to a mobile communication network, comprising: a home agent (HA) in which is stored location information of a mobile node (**col. 10, lines 15-23, the HA is capable of communicating with the mobile node so therefore has stored some form of**

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**location information)** and information about the VPN service for the MN (**col. 10, lines 15-23, the HA is capable of contacting the foreign agent so therefore it has information about the VPN service**); a foreign agent (FA) for receiving location registration information from the MN, transmitting a location registration request message to the HA, and transmitting data to an ISP (Internet Service Provider) router of an FA network, when receiving a VPN service request (**col. 10, lines 37-53**); an ISP server for IP tunneling between the ISP router of the FA network and an ISP router of the VPN (**col. 10, lines 15-36**); a router network for routing the FA network and the VPN, and receiving and forwarding the data using an IP tunnel to a correspondence node (**col. 10, lines 15-36**); and a VPN server for providing the VPN service (**col. 9, lines 33-40**); however Tummala does not explicitly teach an ISP server positioned between ISP routers for tunneling in between the routers.

Giniger teaches an ISP server positioned between ISP routers for tunneling in between the routers in order to establish a VPN between to disparate networks (**col. 8, lines 28-42 and Figure 1 shows the concept of “between”**).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Tummala with regarding to the establishment of a VPN over a mobile network with the teachings of Giniger regarding an ISP server for providing a tunnel between ISP routers to form a VPN because an ISP server located between the edge devices can enhance the security of the VPN (Giniger, col. 8, lines 28-42).

6. As to claim 2, Tummala teaches the system as claimed in claim 1, wherein the router network includes a server for searching an edge Internet Protocol (IP) router in the network using an address of the FA (col. 8, line 60-col. 9, line 26).

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7. As to claim 3, Tummala teaches the system as claimed in claim 1, wherein the HA prevents the MN from accepting a call request received from a specific node in an IP network while the MN is performing the VPN service (col. 8, line 60-col. 9, line 26).

8. As to claim 4, it is the same as claim 1 with addition of a limitation for performing IP communication with a specific subscriber. Tummala teaches performing IP communication with the mobile node.

9. As to claim 5, Tummala teaches the system as claimed in claim 4, wherein the router network includes a server for searching an edge IP router in the network using an address of the FA (col. 8, line 5-col. 9, line 26).

10. As to claim 6, Tummala teaches the system as claimed in claim 4, wherein the HA prevents the MN from accepting a call request received from a specific node in an IP network while the MN is performing the VPN service (col. 8, line 5-col. 9, line 26).

11. As to claim 7, Tummala teaches the system as claimed in claim 4, wherein the MN transmits an address of the HA and an address of the VPN server to the FA during VPN registration, and performs the VPN service by receiving a temporary ID for use of the VPN from the FA during the location registration (col. 8, line 5-col. 9, line 26).

12. As to claim 8, Tummala teaches the system as claimed in claim 7, wherein the MN stores an address of the VPN server and an address of a router in the network, received from the FA, and performs the VPN service using the received addresses (col. 8, line 5-col. 9, line 26).

*Response to Arguments*

13. Applicant's arguments filed 9/28/2006 have been fully considered but they are not persuasive. The applicant argues that Tummala does not teach the claim language as amended because (a) Tummala does not teach a home agent in which is stored location information of a mobile node and information about the VPN service for the mobile node; (b) Tummala does not disclose a foreign agent that transmits data to an ISP router of a foreign agent network when receiving a VPN request; and (c) an ISP server positioned between the ISP router of the foreign agent network and an ISP router of the VPN for tunneling between the ISP router.

14. As to point (a), the claim is non-specific as to the type of location information stored on the home agent. In Tummala, the home agent is clearly capable of contacting the mobile node via the foreign network, so therefore the home agent has some form of information to locate the mobile node and the foreign network that is part of the VPN. **It is suggested by the Examiner that the claim language be amended to specifically point out how the home agent locates the mobile node in order for the applicant to differentiate the claimed invention from Tummala.**

15. As to point (b), the system of Tummala would not be able to function if the foreign agent did not notify an ISP router, otherwise the foreign agent would never be able to contact the home agent network and Tummala would be useless.

16. As to point (c), the Examiner acknowledges that Tummala does not explicitly teach a server being positioned in between the ISP routers however this concept is viewed as obvious in view of Giniger. The claim language does not make it clear whether the ISP server is "for tunneling between the ISP routers" or whether the ISP router for the VPN is "for tunneling

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between the ISP routers". It is suggested by the Examiner that the claim language be more explicit with regard to this limitation to eliminate ambiguity.

***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Blair

DBB



ANDREW CALDWELL  
PATENT EXAMINER